

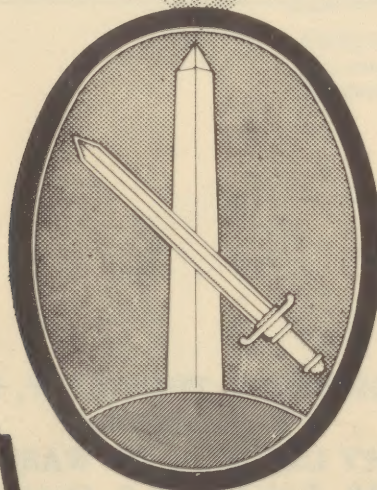
VOLUME 4

REPORT NO. 6

RESTRICTED

# MONTHLY HEALTH REPORT

Military District of Washington



RESTRICTED

JUNE 1951





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MAJOR GENERAL THOMAS W. HERREN  
COMMANDING  
MILITARY DISTRICT OF WASHINGTON  
Room 1543, Building T-7, Gravelly Point  
Washington 25, D. C.



## INTRODUCTION

This publication presents periodic health data concerning personnel of the Department of the Army in the Military District of Washington. It provides factual information for measurement of increase or decrease in the frequency of disease and injury occurring at each of the posts, camps or stations shown herein.

It is published monthly by the Military District of Washington for the purpose of conveying to personnel in the field current information on the health of the various military installations in this area and on matters of administrative and technical interest. Items published herein do not modify or rescind official directives, nor will they be used as a basis for requisitioning supplies or equipment.

Contributions, as well as suggested topics for discussion, are solicited from Army Medical Service personnel in the field.

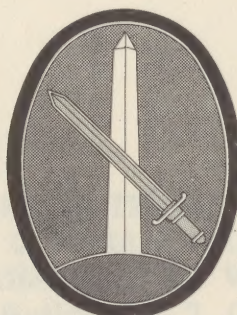
A handwritten signature in dark ink, appearing to read "Robert E. Bitner".

ROBERT E. BITNER  
Colonel, MC  
Surgeon



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## RETIREMENT OF MAJOR GENERAL BLISS

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At this time of my retirement I send greetings to all members of our world wide Medical Service. The knowledge of your unfailing devotion to the health and professional care of your comrades has ever been humbly in mind during my service as Surgeon General. During these years your efforts have resulted in a health record heretofore unexcelled and in unsurpassed medical care under war conditions.

My thanks and sincere best wishes for your future.

R. W. BLISS  
Major General  
The Surgeon General

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## DENTAL SERVICE

### AMALGAM RESTORATIONS FOR THE MIDDLE-AGED PATIENTS

BY: Lieutenant Colonel William M. Harley, DC  
U. S. Army Dispensary, The Pentagon

The subject matter for this article has been composed from a series of dental cases seen at the US Army Dispensary, The Pentagon. The majority of patients treated in the dental clinic of the US Army Dispensary, The Pentagon, are those field grade and general officers, whose ages are arrayed within the age bracket of "middle age" (40-50 years). This age group presents quite different problems in dental care than that of the younger patient so often seen at the average service dental clinic. It is the purpose of this article to point out some of the important procedures taken in successfully caring for this type of dental patient.

The first consideration that presents itself to the operator in caring for the middle-aged patient is to determine the type cavity preparation that will best serve the individual case due to the loss of considerably more tooth structure than that encountered in the younger patient. In establishing the outline form it is important to extend the margins until solid tooth structure, free from decay or porous enamel, is reached. Leave no over-hanging, unsupported, or extremely brittle enamel margins wherever possible, and always if possible seat the cavity in underlying dentin which will give strength and support. Always extend the margins of cavities approaching closely to developmental grooves to include the grooves. This procedure is advisable for reasons of strength and will fortify the architecturally weak portions of the tooth. It is always advisable to unite two cavities approaching closely to each other to prevent leaving a weak ridge of tooth structure between them, thus giving bulk to the finished amalgam tending for longer successful usage.

In proximal cavities it is necessary to extend the labial, buccal and lingual margins further into the embrasures than is normally done for the younger aged patient. It should be noted here that the gingival margin is considerably deeper and in many instances will extend under the free margins of the gum despite the recession that has taken place over a period of years. The practise of cutting for immunity or extension for prevention is not such a prime factor for consideration in the more mature patient due to the lesser amount of carious substance encountered. The amount of tooth structure lost by such a process has already taken place and the amount of cutting is determined usually by the amount of tooth structure that is left, and can be adequately used in the final filling thus giving bulk to amalgam lending to greater compressive strength.

The technique for obtaining outline form thru instrumentation can be easily worked out by the individual operator with the use of burs, chisels, hoes, and hatchets to fit the size and location of the restorations. The larger burs sized #37 and #39 for the inverted cone, #6 and #8 round, #558 and #560 fissure tend to lend speed to the operations. The Wedelstaedt chisels #41 and #42, along with the gingival margin trimmers, Black's #77, #78, #79, and #80 can be used to good advantage in the quick preparation of the cavity. Stones and Diamond points tend to lend to the comfort of the patient in quick, efficient, and less painful preparation.

In resistance form the general shape of the cavity should be that of the box or mortise form. In this form all of the walls of the mortise are on plane or straight lines, joining at definite line and point angles. Thus the seat for the filling is placed at a distinct right angle to the line of stress, a condition which is considered ideal in all construction work for the older aged patients. Amalgam is readily adapted against the plane surfaces.

This tends to prevent the splitting away of the buccal and lingual cuspal elements in the bicuspid and molars and forces the filling to act as a wedge in withstanding the stresses of mastication.

The retention form in proximo-occlusal restorations on bicuspid and molars, the Class II, is provided by adopting the compound dovetail mortise form, the step portion of which being wider bucco-lingually at its extremity, thus locking the filling into place. It should be borne in mind to never have a thin or narrow neck for the step portion, but instead this should be wide and broad.

Convenience angles may be prepared with inverted cone bur #33½ or even #35, placing the bur in the point angle and cutting more at the expense of the lateral walls than of the floor of the cavity if possible. In deepening gingival point angles do so more at the expense of the axial, labial, buccal, and lingual walls, than of the gingival wall.

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The next step to be considered is the removal of all decay possible. During the performance of the previous steps the most of the carious matter will be removed and the operation of placing the cavity margins in their proper location with the formation of the internal parts of the cavity should be routine. All decay should be completely removed. During the progress of caries, decalcification and discoloration has taken place in the deepest portion of the dentin which may have been partially decalcified though not necessarily decayed. Thus, in such instances, it is best to leave portions of discolored or partly decalcified hard dentin on the walls of cavities to avoid possible exposure of the pulp. In such cases the cavity should be thoroughly sterilized and silver nitrate makes an excellent treatment here. Frequently in this step in deep cavities the outline of the recession lines of the pulp can be clearly seen and often the preparation will extend into the pulp chamber from this point, and even in rare instances the root portion of the pulp will be encountered without an actual exposure or hemorrhage in the older patient due to a healthy formation of secondary dentin that has been laid down by Nature. In the case of such a deep preparation a sedative of Zinc Oxide and Eugenol can be used along with Thymol or either Calcium Hydroxide.

In the finishing of the enamel margins of the preparation the cutting should follow the general direction of the enamel rods in the different localities, and the rods should be chiseled away along their lines of cleavage. The cleavage should include the entire thickness of the enamel, and all unsupported rods should be removed. The inclination of the enamel wall will be regulated largely by the location of the cavity, direction of the enamel rods, strength of the bite, friability of the enamel and edge strength of the amalgam. If the enamel walls have been trimmed to follow the lines of cleavage in the various localities little level is necessary. Following the cleavage and trimming of the enamel, it should be planned to extreme smoothness to give a smoothly finished amalgam. To do this one can use chisels of razor-like sharpness, enamel hatchets, gingival margin trimmers and the diamond points.

The performance of the toilet of the cavity should be accomplished in the following order. Remove all debris with warm air being sure to inspect for possible remaining decay. Swab the walls with absolute alcohol, then with dry cotton; thus loosening further debris, then use the warm air again thoroughly drying the walls. Then to provide a soothing sedative effect Eugenol should be placed in the cavity with a cotton pellet and warm air used to produce an even drying and spreading performance. Thus the cavity is now ready to receive its amalgam filling.

In some of the deeper cavities after using Zinc Oxide and Eugenol as a sedative, it is good operative procedure to use an Oxyphosphate base over the former to further protect the pulp from thermal changes. It is interesting to note here that in many deep seated cavities, silver nitrate can also be used to good advantage, especially in gingival regions where tooth structure has become somewhat softened with recession due to age in what was once a subgingival area.

With the completion of the toilet of the cavity the problem confronting the operator in Class II restorations is the selection of a correct matrix or band to condense his filling properly. To accomplish this he can use a half round or an all around band depending upon the size and location of his cavity. Sometimes he may not be able to use either, but will be forced to construct his own band from matrix material using the tinner's joint. It is essential that a well fitting band be used to extend further into the embrasure areas due to the loss of more tooth structure than encountered in younger patients, thus at the same time giving strength to the finished restoration with more bulk and establishing proper contact. Often wedges will have to be employed to secure the bands in position to prevent the loss of filling material, while proper condensation is being obtained, especially in the gingival area.

After the matrix band has been secured a small portion of wet or sloppy amalgam is inserted in the bottom of the completely dry cavity and is packed into all of the margins. Then amalgam is added from which more mercury has been expressed and this is packed with a slightly increased degree of pressure with extreme care being exerted to force the material to all portions of the cavity, thus producing a drying effect to prevent spheroiding especially in the sharp angles. This procedure is followed until the cavity is completely filled and all margins are overpacked but not burnished. This is allowed to harden for at least eight minutes then the preliminary removal of the excess around the margins of the filling is trimmed to allow for the pulling away of the matrix band without fracture to the filling. Then the filling is allowed to set for an overall period of at least fifteen minutes and in some instances twenty to twenty-five minutes with the larger restorations. Extreme care must be taken to remove the band and in each instance it should be pulled back flush against the



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## DENTAL SERVICE

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adjacent tooth before pulling thru from either the buccal or lingual direction. At this time the filling can be carved up to any anatomical form without fear of fracture. It is felt that an amalgam with broad and rounded margins restoring proper anatomical form with proper contact will serve the older patient better than a finely carved amalgam with sharp margins, because it will have more bulk to withstand the stresses of mastication. The Hollenback carvers along with the Woodson instruments will insure a smoothly finished filling.

In the case of the large amalgam restoration it is absolutely necessary to have the patient return after an elapse of at least twenty-four hours for occlusal adjustments and finishing of the filling to prevent later fractures due to the stresses and strains of mastication. These fillings should be adjusted to proper occlusion by using finishing burs, and grinding the buccal cusps of the upper restorations and the lingual cusps of the lower restorations to restore centric relationship. Extreme care should be exercised not to destroy the contact point in finishing restorations between adjacent teeth,

In conclusion, amalgam tends to make a most serviceable restoration for the older patient because of its high crushing resistance, insolubility in the fluids of the mouth, ease of manipulation, adaptability to cavity walls, and capability of polish.

## VETERINARY SERVICE

### REPORT ON "Q" FEVER

Compiled by

Capt. Larry E. McClaughry, V. C.

(Continued)

#### Observations on the Epidemiology of Q Fever in Northern California (1)

The first cases of Q fever in Northern California were uncovered through the medium of a serologic survey conducted on serum specimens submitted for Brucella agglutination tests. Field epidemiological investigations of these early cases pointed to the probable involvement of domestic livestock other than cattle. In the first instance investigated, the patient, who had been hospitalized for several weeks with an undiagnosed illness, proved to be the owner of a large herd of dairy goats and cows. Serologic examination of the livestock showed that only one of 26 cows possessed demonstrable complement fixing antibodies to *C. burnetti*, whereas 12 of 30 goats (40%) were positive.

As additional cases of Q fever were found in Northern California, it was observed that the majority of them occurred in sheep-raising areas. In addition, attempts to recover the *Rickettsia* from the milk of dairy cows in this area were negative. Sheep was the species to which the majority of the patients had been exposed. The *Rickettsia* was found to be shed in the milk of sheep (2).

In this same region, there was an outbreak involving nearly 70 persons in an agricultural college. Contact with livestock was not as obvious in all these cases as in those above, but a significantly large proportion of the cases occurred among students whose major curriculum was animal husbandry. All types of domestic livestock were present as part of the herds used for teaching purposes. When these livestock were examined serologically, it was found that a high proportion, 46 per cent of the sheep has antibodies to *C. burnetti*. Only three animals of the 184 in the dairy herd, and three of the four goats present, possessed antibodies. Antibodies were not detected in horses or swine.

Epidemiological observations of the foregoing type led to serologic studies on 2,600 sheep in two categories; those animals associated with patients having Q fever and those representing the general sheep population of Northern California. Among those sheep epidemiologically associated in some manner with human cases, nearly 30 per cent were found to possess antibodies; by contrast, only 3.6 per cent of the animals drawn from the general sheep population had antibodies. These observations suggest a relationship between the occurrence of infection in sheep and man but do not necessarily imply casual relationship. The possibility exists that both man and his livestock may acquire the infection from a common source.

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From these considerations, it appears that human infection in Northern California is somehow related to more or less direct contact with one or another of three species of domestic livestock, sheep, goats or cattle. It would seem, however, that the problem is somewhat more subtle. For example, in one rural town of 3,000 population, 41 cases of Q fever occurred over a period of 11 weeks; 37 of these persons had had no direct contact with livestock of any kind. All but two patients were men, the age range from 19 to 82 years. The 39 men represented a wide diversity of urban occupations; it is interesting to note that eight were county employees or attorneys who spent all or most of their working hours in one building. None of the 41 patients appeared to have contracted the illness from another person, although many of them had some degree of contact with one another. In the vicinity of the town there were nine small dairy herds. From eight of these, 195 cows were tested for complement fixing antibodies and all were negative. More than 20,000 sheep were present in the grazing areas lying on either side of the town; 446 blood specimens were taken from sheep in the 13 flocks comprising this total, and 47 (10.5%) were serologically positive.

Epidemiological studies (3) of this outbreak have provided no satisfactory answer concerning the sources and routes of infection. However, the recovery, in the course of other studies, of *Rickettsiae* in the secretions and/or excreta of sheep, goats and cattle led us to speculate on the potentialities of infection arising from an infected environment. In the outbreak under discussion it was found that serologically positive sheep were present in the area and that a number of these animals had been driven or trucked through the town. Further, the outbreak occurred at the time of year when movement and handling of the animals is at a maximum because of lambing, shearing, and changing grazing areas.

1 Lennette, E. H. and Clark, W. H.: Q Fever in California, J.A.M.A. 3 Feb 1951.

2 Lennette, E. H., Clark, W.H., and Dean, B. H.: Sheep and Goats in the Epidemiology of Q Fever in Northern California, Am. J. Trop. Med. 29: 527 (July) 1941.

3 Clark, W. H. and co-workers: To be published.

That contamination of the environment is possible has been demonstrated by our recovery of *C. burnetti* from the milk and placentas of naturally infected sheep and from the milk, urine, feces, oral and nasal secretions and placentas of experimentally infected sheep. The presence of the *Rickettsia* in the dust-laden air of premises harboring infected sheep (1), dairy cattle (1), and dairy goats (2), has been demonstrated and suggests a possible means of carrying infection to man. In Northern California the seasonal occurrence of cases coincides roughly with the lambing season, a period when greatest contamination of the environment might be expected to occur through milk and placentas. By way of comparison, in Southern California, where the dairy herds produce milk the year around (and calving is not season), cases of human Q fever occur throughout the year and a season incidence has not been noted (3).

#### Summary

A high percentage of positive complement fixation reactions for Q fever was obtained from those who used raw milk in their households but did not work or live in or near dairies. Although pasteurization would seem to be sufficient protection for this group, they constitute only one-third of the cases investigated. Additional evidence showed that persons intensely exposed to raw milk only on the job also had a high percentage of positive reaction. Pasteurization could not reduce infections in this group even though vaccination of humans and animals might. Again, in the area surveys, the percentage of positives was increased when the only possible exposure was residence near dairies. Prevention of infection in such a group would require their change of residence or the removal of the dairies from the urban areas. Obviously, therefore, pasteurization as the single measure of control would have a limited effect on preventing Q fever. The only conclusion, which can be reached is that for effective control efforts must be directed against the major animal sources of human infection, dairy cows, sheep and goats. To do this, additional basic information must be obtained on the mode or modes of transmission of infection and the effect of vaccination in these animals.

After Q fever was recognized in Southern California, and again associated with cattle, experimental studies of the disease in domestic animals began. These studies were initiated by Parker and associates at the Rocky Mountain Laboratory, Hamilton, Montana in mid-1947 for the purpose of obtaining basic knowledge of the epizootiology, pathogenesis, pathology and symptomatology of Q fever in cattle.



The results of early experimental studies suggested that cattle were rather resistant to infection with *C. burnetti*. Derrick and co-workers in Australia (4) attempted to infect two calves by subcutaneous inoculation with a suspension of infectious guinea pig tissues. *C. burnetti* was recovered from the spleen and liver of one of the calves slaughtered on the fourth day postinoculation, and the other calf developed specific agglutinins. In 1947, Parker (5) attempted to reproduce the disease in four heifers by intranasal, intravenous, and intravaginal inoculation and by feeding contaminated bran. Large doses were employed in these attempts, yet all four heifers were refractive to infection.

After *C. burnetti* was recovered from milk of dairy cattle in Los Angeles (6), an attempt was made to reproduce the disease in two lactating cows by inoculation via the teat canal or by injecting the organism into the mammary gland substance. These cows continued to shed rickettsias in their milk for an extended period, and complement fixing antibodies against *C. burnetti* appeared in their serums. Milk of uninoculated quarters remained free of *C. burnetti*. Blood, urine, feces, and nasal washings of cows so infected were tested and determined to be noninfectious for guinea pigs.

In the Spring of 1949, an experiment was initiated to test the possibility of cow to cow spread through the milking process. Five cows, from three to six years of age, were exposed five times a week by dipping the teats in infectious milk before milking. Three\* were exposed for eighteen and one half weeks, and the remaining two were exposed for ten and one half weeks. At the end of this period, none of the cows had become infected, so exposure both before and after milking was started. Again, after nineteen and one half weeks of such contact, no infection was produced. Thus, it appears that cow-to-cow spread through the milking process is improbable among cows with normal udders.

An epidemiologic study of 300 human cases in Los Angeles revealed that 45 per cent resided within a quarter mile of a dairy or livestock yard. This finding suggested a possible air-borne spread. In view of this, it was desirable to determine whether cattle could be infected by inhalation of *C. burnetti*. A crude mask was devised which permitted inspiration only through a tube to which an atomizer was attached, and permitted expiration only through another tube. With this device, a pregnant, lactating cow was exposed to the aerosol spray produced from 5 ml. of a 10 dilution of yolk sac culture. Because of the short distance between the aperture of the atomizer and the opposite wall of the tube, it was estimated that less than 50 per cent of the culture was nebulized. The following observations are of interest: (a) Daily tests of blood for infectiousness during a period of twenty-one days postinoculation were consistently negative; (b) complement-fixing antibodies against *C. burnetti* appeared in the serum of this cow on the thirteenth day postinoculation, but dropped to an insignificant level at parturition, which occurred thirty-six days after exposure; (c) although a full-term, normal calf was born, *C. burnetti* was recovered from the placenta; (d) during the month following parturition, urine and particularly vaginal washings were infectious for guinea pigs; (e) *Q* fever rickettsias persisted in nasal secretions for thirteen days following exposure; (f) frequent infectivity tests of feces and milk, collected both before and after parturition, were consistently negative; and (g) no symptoms of illness were manifested.

The localization of *C. burnetti* in the mammary gland and pregnant uterus suggests a comparison with brucellosis, a disease in which this also occurs. In both diseases, the infected placenta and postparturient uterine discharge are potent sources of infection. Calves under breeding age are relatively resistant to brucellosis. Experimentally, calves of similar age manifest variable resistance to *Q* fever. In both diseases, experimental exposure of pregnant cattle by various routes results in the localization of the infection in either the uterus, placenta, or mammary gland..

*Q* fever is a disease which has only recently been diagnosed. The papers and articles which have been written to date are merely reports of experiments which have been carried on both in man and animals. About the only positive information which is known is that the causative agent is a *Rickettsia* which is now known as *Coxiella burnetti*. Most of the epizootiology of the disease is in an experimental stage. It remains the work of the scientist, doctors, and veterinarians to carry on with the experiments and find the answers to the problems *Q* fever presents.

\* One cow dry for eight weeks, unexposed.

1 Delay, P.D.: Lennette, E.H. and DeOme, K.B.: *Q* Fever in California; II Recovery of *C. burnetti* from Naturally Infected Air-Borne Dust, *J. Immunol* 65: 211 (Aug) 1950.

2 Lennette, E.H. and Welsh, H. H.: To be published.



- 3 Beck, M.D., Bell, J.A., Shaw, E.W. and Huebner, R.J.: Q Fever Studies in Southern California, Pub. Health Report 64: 41 (Jan 14) 1949.
- 4 Derrick, E.J.: Smith and Brown: The Role of the Cow in the Transmission of Human Infection.
- 5 Parker, R.R., Bell, E.J. and Lakman: Experimental Studies of Q Fever in Cattle, Am. J. Hygiene, 48 191-206, 1948.
- 6 Huebner, R.J., Jellison, W.L., Beck, M.D., Parker, R.R., and Shepard, C.C.: Q Fever Studies in Southern California, Pub. Health Report 63: 214-222 (1948).

## MEDICAL ASPECTS OF KOREAN CAMPAIGN

### PRELIMINARY REPORT ON MEDICAL ASPECTS OF THE KOREAN CAMPAIGN, JULY THROUGH NOVEMBER 1950

This article summarizes the morbidity experience of United States Army troops engaged in military operations of the United Nations forces in Korea during the first five months of the campaign, July through November 1950. Although it is obvious that the conditions surrounding any two military operations are never exactly the same, the medical experiences of three United States field armies during World War II are presented for comparative purposes to aid in evaluating the data reported from Korea. The data for the three World War II armies - the First in northern France, the Fifth in Italy, and the Sixth in the Philippine Islands - embrace combat operations somewhat similar to the early months of the action in Korea. The period covered for the First Army in Europe extends from D-Day, 6 June 1944, through the exploitation of the St. Lo break-through, 15 September 1944; for the Fifth Army in Italy, from the beachhead landing at Salerno, 9 September 1943, to the establishment of the winterline in late 1943; and for the Sixth Army in the Philippines, the assault phase of the Leyte-Samar operation, 20 October through 30 December 1944; and all except the last month of the Luzon operation, 7 January through 21 April 1945.

1. The medical experience of the United States Army in Korea in the July-November 1950 period in many respects compares favorably with World War II operations of three United States field armies. To summarize, the average weekly admission rates compare with those for the listed World War II forces as follows:

- a. The admission rate for all causes was somewhat higher.
- b. The disease rate was considerably higher than the corresponding rate for the First Army; about the same as the rate for the Fifth Army, and slightly above those for each of the operations of the Sixth Army in the Philippines.
- c. The nonbattle injury rate was generally higher.
- d. The battle injury and wound rate was somewhat intermediate between the extremes of the rates for the World War II armies listed.

2. The fatality rate for battle injury and wound cases originating in Korea from July through November 1950 was 2.3 percent. In World War II, the percentage of wounded dying of wounds was 4.5.

3. Approximately 58 percent of the United States Army battle injury and wound admissions were returned to duty from medical facilities in Japan and Korea during the first five months of the operation in Korea. Of the 58 percent, 33 percent returned to duty in Japan, and 25 percent in Korea.

4. The proportion of neuropsychiatric cases to battle injury and wound casualties in Korea from July through November 1950 was approximately one to six, or about the same experience by troops of the Fifth Army in Italy from September 1943-December 1944. Approximately 80 percent of the Army neuropsychiatric cases originating in Korea have been returned to some form of duty in Japan and Korea; about an equal proportion in each area.

5. Malaria incidence among United States Army personnel in Korea, though relatively high, has been not only lower than it was for occupation troops there from 1946-1949 but also far below the levels existing among U. S. troops fighting in malarious areas during World War II.

6. The incidence of common respiratory disease and influenza among Army personnel in Korea from July through November 1950 compared favorably with that experienced by occupation troops living under garrison conditions in South Korea during the respiratory seasons of both 1946-47 and 1947-48.



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## MEDICAL ASPECTS OF KOREAN CAMPAIGN

7. Although enteric diseases, especially diarrheal disorders, constituted a major problem in Korea during the summer months of 1950, the incidence rates for diarrhea and dysentery for troops there were considerably below comparable rates for troops stationed in China-Burma-India during World War II. The reported incidence of both bacillary, and amebic dysentery in Korea was low.

8. Venereal disease incidence, which had been low during the early months of the operation, began to rise in October, after the lull in the fighting made it possible for troops to seek contacts in the rear bases set up in the cities of Seoul and Inchon. The incidence rate for all Army troops in Korea had risen to 81 cases per thousand strength per year by November.

9. The first cases of cold injury (frostbite, trench foot, and immersion foot) in Korea were reported in November 1950; the incidence rate for the report period 4 November-24 November was 26 cases per thousand strength per year. Most of the cold injury cases were frostbite incurred by troops fighting in the sub-freezing weather of the mountains of North Korea.

10. Infectious hepatitis incidence rose steadily from July through November 1950; the peak monthly rate for the period was 31 cases per thousand strength per year in November.

11. An outbreak of infectious encephalitis, a large proportion of which was identified through laboratory tests as the Japanese B type of the disease, occurred in September and October 1950. The high incidence among Army personnel coincided with an epidemic in the civilian population of Korea.

12. Two cases of smallpox, one of which was fatal, were reported among U. S. Army troops in Korea in the July-November 1950 period. Only one case of tetanus was reported in the period; and two cases of scrub typhus fever, but no cases of either murine (flea-borne) or epidemic (louse-borne) typhus fever. Polio myelitis incidence was lower than it had been among the occupation troops in Korea in the postwar years. During the five-month period there were no cases of typhoid fever, plague or schistosomiasis reported among Army troops in Korea.

(The above article is from "Health of the Army", Vol 6, Report No. 1, January 1951)

### AUTHORIZATION FOR MEDICAL CARE

The following questions were recently propounded to the Office of the Surgeon General, Department of the Army, Washington 25, D. C.:

Question No. 1 - Request clarification of AR 40-506, dated 9 October 1950, as changed, with reference to authorization of medical care for widows of military personnel.

Question No. 2-- Request further interpretation of paragraph 5e (5) AR 40-506 as to whether or not members of Reserve Components are eligible for medical care, who are retired for length of service, twenty years or more, other than for physical disability and retired stage of 60 by reason of retirement credits earned while on inactive duty status.

Reply to the above questions is as follows:

Question No. 1 - AR 40-506 does not presently authorize medical care for widows of Armed Forces personnel. A proposed change to cited Army Regulation has been forwarded which will, if approved for publication, authorize medical care for unremarried widows of deceased Armed Forces personnel whose death occurred while on extended active duty or while in a retired status on a "when adequate facilities are available basis." This medical care will be at the rate established for dependents for active duty personnel.

Question No. 2 - Members of the reserve components retired under the provisions of Title II, PL 810, 80th Congress are authorized medical care, i.e., those retired for over 20 years active federal service. Persons retired under provisions of Title III, PL 810, 80th Congress are not authorized treatment.

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## NEW TIME SAVING FORM FOR HANDLING OF QUARTERS CASES

By  
 Captain Ernest D. Chadbourn, MSC  
 Adjutant, US Army Dispensary  
 The Pentagon, Washington 25 DC

To save the time of clerical personnel involved in the processing of Quarters Cases, the United States Army Dispensary at the Pentagon, has adopted a procedure which has proven very helpful.

A local form (figure 1) was devised, containing all the information required for completion of WD AGO Form #8-24. This form is completed in part by the physician and in part by the patient. It is checked by the sick and wounded clerk and placed in a file for subsequent typing on the WD AGO Form #8-24.

Each physician has a supply of these forms in his office. When he desires to place a patient on Quarters, he completes Part A of the form by inserting the patient's name in the space provided. He lines out the words "relieved from" in the next line. The hour and date are inserted in the appropriate space and the diagnosis is entered. The patient is instructed when to return and this date is entered on the form in the space provided. The physician signs at the bottom of Part A. Very little of the physician's time is necessary to complete this part of the form.

The physician gives the form to the patient and instructs him to take it to the sick and wounded office. At that office, a desk is provided where the patient fills out Part B of the form, inserting his name, service number, grade, arm or service, organization, age, race, and active service. The form is then checked by the sick and wounded clerk in presence of the patient.

If the patient is to be relieved from Quarters, the same procedure is followed by the physician except that the words "placed on" are lined out instead of the words "relieved from" and no date is indicated on which the patient is to return.

It can readily be seen that this system records the necessary information for completion of the WD AGO Form #8-24 with a minimum of time expended by clerical personnel of the Registrar's Section.

### U. S. ARMY DISPENSARY, THE PENTAGON

TO PATIENT: TAKE THIS FORM TO SICK AND WOUNDED  
 OFFICE, ROOM 6, CENTER CORRIDOR, THIS DISPENSARY,  
 WHERE YOU WILL FILL OUT PART "B" BELOW.

#### PART A TO BE COMPLETED BY PHYSICIAN

\_\_\_\_\_ is ordered

(NAME)

(Placed On) (Relieved From) a "Quarters Status"  
 effective \_\_\_\_\_  
 (HOUR & DATE)

DIAGNOSIS: \_\_\_\_\_

Patient instructed to return \_\_\_\_\_

PHYSICIAN'S SIGNATURE: \_\_\_\_\_

#### PART B TO BE COMPLETED BY PATIENT (PRINT)

\_\_\_\_\_  
 (LAST NAME, FIRST NAME, MIDDLE INITIAL)

\_\_\_\_\_  
 (SERVICE NUMBER) (GRADE)

\_\_\_\_\_  
 (ARM OR SERVICE - If Air Force indicate whether  
 pilot, non-pilot flying personnel or ground  
 personnel)

\_\_\_\_\_  
 (ORGANIZATION)

\_\_\_\_\_  
 (AGE-YEARS & MONTHS) (RACE) (ACTIVE SERVICE)

FIGURE 1



# CIVILIAN EMPLOYEES HEALTH SERVICE PROGRAM

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## CARBON TETRACHLORIDE - ITS INDUSTRIAL MEDICAL AND HYGIENE CONSIDERATIONS PROPERTIES, CHARACTERISTICS AND USES OF CARBON TETRACHLORIDE

Carbon tetrachloride is a colorless liquid possessing a not unpleasant, ethereal or sweetish odor quite similar to chloroform. It evaporates readily and the odor is easily perceptible at room temperatures whenever open containers are in the vicinity. It is non-inflammable. Chemically, it is a halogen- or chloro-compound of the aliphatic series while physiologically it belongs to the anesthetic group of compounds. Because the vapors are heavier than air they seek the lower levels when the solvent is used in a closed space. Carbon tetrachloride decomposes when sprayed on a flame or heated metal surface and deadly phosgene may be set free in dangerous concentration. The same thing may occur if its vapors are permitted to flow over hot metal surfaces such as stoves or hot plates.

The chemical is used extensively as a dry cleaning liquid, spot remover for small stains and as the solvent in insecticide sprays. Because of its solvent and other properties it is used for countless industrial purposes. It finds its greatest use probably as a cleaner for machinery, in removing grease from metal parts and in fire extinguishers. It has been used in medicine for the treatment of hookworm, but only in small doses and with extreme care. It is the chief ingredient of many trade name compounds used as cleaners and spot removers (For example: Carbona, Carbontet, Tet, Tetratrene and many others).

Carbon tetrachloride has been referred to as the most deadly and least understood of all solvents. Accordingly, wherever it is used, irrespective of its manner of use a serious potential health hazard exists.

### INCIDENCE OF POISONING

Poisoning from carbon tetrachloride occurs quite frequently and is often severe. Innumerable instances are reported of intoxication from the use of the compound as a solvent in unventilated spaces. Poisonings have occurred from its being mistaken for water and accidentally swallowed; from cleaning parachutes; following the application of floor wax containing the solvent; from cleaning ink pads on a printing press; during moving tins of the solvent in a storeroom; cleaning machinery; cleaning old telephones; cleaning spots from tile floors; and as a result of the dry cleaning of clothing in the home. These are only a few examples of unusual uses of the chemical which have resulted in both fatal and nonfatal poisoning of individuals.

### TOXIC ACTION OF CARBON TETRACHLORIDE

An acute exposure to a high vapor concentration causes temporary unconsciousness from functional depression of the central nervous system. Recovery may be followed in a week or two by serious damage, most frequently to the kidneys, but occasionally to the liver. If this or other damage does not occur recovery is complete. Less severe but repeated exposures (subacute) may cause similar damage in a few days or weeks. Subacute exposures have produced death within a period of two weeks. Mild exposures over long periods (chronic) may also produce similar organic damage.

Carbon tetrachloride may affect the gastrointestinal tract, the optic nerve, and rarely it produces a peripheral neuritis. At time the lungs may be involved. This would be expected under conditions where the decomposition products (hydrochloric acid and phosgene) are present. The action on the kidney and liver is a process of destruction and degeneration of vital cells. The erroneous belief that carbon tetrachloride exerts its toxic action predominately on the liver has led to failures in diagnosis.

Skin exposure to the solvent results in removal of the oils from the skin which then becomes red, dry and cracked. The eyes, nose and throat are irritated by the vapors and minor scratches are made worse.

### MODE OF ENTRY INTO BODY

Carbon tetrachloride is readily absorbed through the mucous membranes and skin. Skin absorption is especially prone to occur through burned or denuded areas. The chemical may be absorbed through the gastrointestinal tract if ingested. Inhalation of the vapors, however, is the chief

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source of poisoning.

## MANIFESTATIONS OF POISONING

In the acute form of poisoning there is stupor, excess secretion of saliva, weakness, faintness and unconsciousness. In milder acute poisoning there may be headache, dizziness, drowsiness, nausea, vomiting and pain in the abdomen. Cardiac disturbances are not uncommon. The symptoms may be delayed for several hours after cessation of the exposure.

In subacute poisoning fatigue, weakness, nausea, vomiting, headache, bronchitis, difficulty in breathing and pulmonary symptoms are to be expected. This may be regarded as a state of mild narcosis, short of acute narcosis or complete anesthesia.

In chronic poisoning signs, in order of occurrence as the poisoning becomes progressively more severe, may be irritation of the eyes, nose and throat; irritation of minor skin scratches; dermatitis with a red, dry, cracked skin; conjunctivitis, catarrh, headache, nausea, vomiting, gastric pain, bronchitis, broncho pneumonia, polyneuritis, weakness and fatiguability; and eye symptoms consisting of blurred vision, blind spots before the eyes, and contracture of the visual fields with the patient complaining that "things look small". Jaundiced sclerae may be seen. Infrequent urination may occur and the urine may become dark and scanty. The eyes may become puffy and the ankles swollen. Usually the blood pressure is increased and heart irregularities may occur. When there is kidney involvement the urine contains albumen, casts, red blood cells and sugar and the blood contains an elevated non-protein nitrogen. With liver damage the icterus index is high, and the thymol turbidity test is positive.

Symptoms of poisoning from exposure to a high concentration may be delayed 24 to 48 hours. They may develop after the individual has been away from work for some time.

In chronic poisoning symptoms develop slowly and no gross signs may be evident. Periodic physical examinations and laboratory tests may be the only means of determining the existence of poisoning. In this connection the most important thing to remember is that if the poisoning is discovered in time, the changes produced by carbon tetrachloride are reversible, and removing the individual from exposure and treating him results in a cure. Early diagnosis, therefore, is a responsibility of the medical department. It is the sheet anchor of control of carbon tetrachloride poisoning.

Although different individuals react differently to toxic amounts of the chemical, there is no evidence that man possesses any natural immunity to the compound. Certain things seem to predispose to poisoning. The state of nutrition may influence the severity of the effects, poor health increasing the dangers. The ingestion of alcohol aids absorption and increases the toxicity of carbon tetrachloride and liver disease caused by alcohol makes exposure to carbon tetrachloride especially hazardous. A lack of calcium in the diet or the blood causes over-susceptibility. High fat content in the diet also increases the danger.

## DISABILITY

The nature and extent of disability resulting from carbon tetrachloride poisoning depend entirely upon the alertness of all concerned to its dangers and the control measures employed. Temporary acute poisonings from which recovery is complete will result in disability of from a few days to two weeks. More severe poisonings will cause disability of from several weeks to several months. If the individual recovers there is no permanent disability.

## FIRST AID

First aid in acute exposures consists mainly of rescue work or removal of the individual from the source of the exposure; artificial respiration; and keeping the victim warm and quiet. A doctor would be called because the heart may fail. Subacute and chronic poisonings should be removed from the exposure.

## PREVENTIVE MEASURES

Carbon tetrachloride may be used safely if adequate precautions are taken. The uncontrolled

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# CIVILIAN EMPLOYEES HEALTH SERVICE PROGRAM

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use of this chemical should not be condoned. Independent reliance on the concentration of the vapor in the air is not a sufficient safeguard although the maximum allowable concentration of 50 ppm in the atmosphere should never be exceeded for an 8-hour daily exposure. A good rule to follow is that any concentration perceptible by odor is too much for continuous or repeated exposure.

Supervisors should be trained regarding properties of carbon tetrachloride and the safeguards required when it is handled. Workers should be instructed on the hazards associated with exposures and the measures for preventing intoxication. The physician of the organization should know the various types of solvents used in the plant and the nature of their toxic action.

Specific Industrial hygiene control measures are as follows:

- a. Substitution of a less toxic solvent when possible.
- b. Mechanization of the operation and use of closed processes wherever feasible.
- c. When general ventilation is to be relied on for control it should always be adequately supplied and the operator should always be "up wind" from the source of the vapors. The work should be arranged so that the ventilation carries the vapors away from the worker. There should be assurance that the vapors will not re-enter the work area. Remember, the vapors seek a low level. The degree of exposure should be determined by ascertaining the concentration in the air but this should not be relied upon solely as a control measure.
- d. The process may be isolated in a well ventilated room as a means of controlling the exposure. The ceilings of the room should be high and there should be adequate floor space.
- e. Carbon tetrachloride should not be used where the liquid or vapor will flow over flames or hot metal surfaces. An exception to this rule is its use as fire extinguisher.
- f. Local exhaust ventilation should be used wherever practicable. Grids and down-draft ventilation should be used when work is carried out on benches.
- g. Degreasing tanks should be located, when used, in large rooms with high ceilings away from doors and windows. There should be adequate cooling and condensing capacity. Tanks should be as small as is consistent with good operation. They should be provided with local exhaust ventilation. The removal rate of parts should be about 11 feet per minute.
- h. In the cleaning of degreasing tanks or other tanks which have contained carbon tetrachloride it is important to provide respiratory protective devices. The chemical cartridge respirator is no protection against severe exposure. This type of respirator is approved by U. S. Bureau of Mines for short exposures to concentrations not exceeding 1000 parts per million. Cartridges must be changed often. Supplies-air respirators or hose masks with blowers approved by the U. S. Bureau of Mines are preferred for such work. The other usual safety precautions such as safety belts with lines and a helper are indicated when the nature of the work involves entering a tank or large container.
- i. When cleaning small parts in open containers small amounts only of carbon tetrachloride should be used in each container. Continuous evaporation from a large number of such containers should be avoided. Wiping cloths and brushes should also be kept in closed containers. Drying of small articles should be done in a hood or in an area with exhaust ventilation. Skin contact should be prevented by the use of impervious gloves, sleeves, and aprons. These may be made of vinylite.
- j. A warning should be placed on pyrene fire extinguishers cautioning against use in enclosed spaces without a gas mask.
- k. Carbon tetrachloride should not be used for skin cleansing or for unauthorized cleaning of clothes.

Medical control measures are as follows:

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# CIVILIAN EMPLOYEES HEALTH SERVICE PROGRAM

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a. Preplacement physical examination. Workers should be carefully selected. Malnourishment, obesity, Brights disease, diseases of the lungs, liver, or thyroid, diabetes, alcoholism and jaundice are causes for rejection. Individuals with a hypersensitivity as evidenced by the presence of an allergic type of dermatitis should not be employed around this solvent. Other causes for rejection are pregnancy, individuals taking hepatotoxic drugs such as arphenamine, and individuals who have recently taken chloroform or avertin anesthesia.

b. Periodic physical examination. Records should be kept of complaints of workers that might suggest carbon tetrachloride poisoning. Careful observation of workers should be maintained with special reference to nausea, vertigo, jaundice, weakness, fatigue, light headedness, headache, any complaints of disturbance in vision, dermatitis, and eye, nose and throat irritation. The presence of weakness and fatigue are especially important since these may indicate a state of mild narcosis. Such a state is a definite liability to both employer and employee alike and people so affected are more prone to accidents and operate with a low efficiency.

Laboratory examinations should be routine and should include complete chemical and microscopic examination of the urine; liver function tests including a thymol turbidity test; and careful examination of the eyes including eye grounds and visual fields.

When physical examinations or laboratory tests reveal any significant abnormality the individual should be removed from all further exposure until recovery is complete. In the case of chronic toxicity the individual should be permanently removed from the exposure to any carbon tetrachloride or any other chlorinated hydrocarbon or perhaps any solvent. The frequency of periodical examinations should be determined by the degree of exposures but frequent observation should be routine. An effort should be made to reduce the time of exposure where exposure is unavoidable. Rotation of workers may accomplish this.

\* \* \* \* \*

## WORRIED ABOUT YOUR BLOOD PRESSURE?

"Knowing that I have high blood pressure has poisoned my life." This remark came from a patient of Dr. Robert S. Palmer, of Boston, who cited it as an example of how some patients feel after they know that they have hypertension. It is an unfortunate attitude but reasonable, considering the stigma attached to the condition. Even physicians who develop the disturbance often find it hard to take. This is a common occurrence. There are many mysteries associated with hypertension but it is well known that a relationship exists between the emotions and blood pressure. This is taken into consideration when outlining a plan of treatment. The physician often assumes the role of psychiatrist and delves into the personal history and intimate details of the living conditions and habits of the patient. For best results, it often is necessary to uncover and eliminate anxiety, fear, resentment and other disturbing features that might aggravate the pressure. But there is one cause for anxiety that often is overlooked. This cause frequently stems from the physician himself. It is known as blood pressure anxiety and, in the more suggestive individual, may change a relatively benign hypertension into one that is malignant. It comes from talking too much. During the initial examination of any patient the reading is likely to be elevated owing to excitement and apprehension. All too often it is normal by the next visit provided the reading was not excessive originally. Many feel that it is unfair to bring the height of the blood pressure to the attention of the patient during the initial consultation. Furthermore, this is no time to order extensive laboratory procedures; it is better to wait until a definite diagnosis of hypertension has been made. This is avoided by not mentioning the blood pressure until the second or third visit. In this way, blood pressure anxiety does not complicate the picture. If the new research on blood pressure by Master, Dublin, and Marks is accepted, it will help to avoid trouble along this line. These men believe that our present standards are too low, and in this respect share the opinion of many physicians. All of us have seen many men and women with hypertension live far beyond normal life expectancy. In addition, the authors noted that: "Blood pressures of 140mm (of mercury) systolic and 90 mm. diastolic or over are present in about 40% of both men and women at ages 45 to 49 and in 60% at ages 60 to 64. Since systolic pressures of 160 and 190 mm. and diastolic pressures of 100 to 110 mm. are not uncommonly observed after the age of 50, patients with such readings may be in good health, and efforts to lower the blood pressure by means of drugs or strict low sodium or rice diets may be unnecessary. In evaluating the status of the patients, one should first determine cardiac function. If coronary disease, cardiac enlargement or heart failure is present, therapy should be directed to the condition rather than the hypertension."

-- From Illinois Med. J., December, 1950.

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## PREVENTIVE MEDICINE

## GENERAL COMMENT

The health of the command continued to be excellent.

Unless otherwise indicated, reference to disease and injuries in this publication applies to all Class I and Class II installations exclusive of Walter Reed Army Hospital. Rates are calculated on the basis of a thousand mean strength per year. Statistics presently reported by Army Medical Service installations do not include Air Force Personnel. (See General Data and Admissions Tables on page 15).

The non-effective rate\* decreased from the April rate of 15.39 to 15.26 for the month of May. Days lost as a result of disease and injury totaled 14,378 during the five week period ending 30 May 1951.

$$\text{*Non-Effective Rate} = \frac{\text{Total Days lost} \times 1,000}{\text{No. of Days in Period} \times \text{Average Daily Strength}}$$

Non-effective rates indicate the average number of patients in hospital or quarters per thousand mean strength during the report period.

The total admission rate\*\* for disease and injury in May was 382.8, compared to 447.9 during April. Total admission for disease and injury in May was 988. Of this number, 844 admissions were for disease and 144 injuries. Fort Myer reported the highest admission rate, and U.S. Army Dispensary, The Pentagon reported the lowest rate during the current month.

$$\text{**Admission Rates} = \frac{1,000 \times 365 \times \text{Number of Cases}}{\text{Mean Strength} \times \text{No. of Days in Period}}$$

Admission rates show the number of cases per thousand strength that would occur during a year if cases occurred throughout the year at the same rate as in the report period.

May's rate for disease cases is 327.0 for 844 cases. Fort Myer reported the highest admission rate, U. S. Army Dispensary, The Pentagon reported the lowest rate for disease cases.

An injury admission rate of 55.7 per 1,000 per annum for May was reported. This was an increase over the April rate of 45.2. Fort Myer reported the highest rate and U.S. Army Dispensary, The Pentagon reported the lowest rate for injuries.

There was one death reported during the five week period ending 30 May 1951, by units within the Military District of Washington less Walter Reed Army Hospital.

## COMMUNICABLE DISEASE

Common respiratory diseases decreased in incidence during the month of May 1951. The rate for the present month is 89.1 compared to the April rate of 153.0. Fort Belvoir reported the highest rate, and All Others reported the lowest rate. Admission rates for pneumonia (all types) decreased during the May report period. The rate being 9.3 compared with the April rate of 13.6. There were no cases of scarlet fever reported throughout the month of May.

No appreciable change was noted in the rate for mumps, tuberculosis, rheumatic fever, diarrheal disease and hepatitis during the five week period ending 30 May 1951.

Pertinent statistical tables may be found on pages 16 and 20.



# PREVENTIVE MEDICINE

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GENERAL DATA  
5-Week Period Ending 30 May 1951  
(Data from WD AGO Forms 8-122)

(Data from WD AGO Form 8-122)

STATION	MEAN STRENGTH			DIRECT ADMISSION						Non-Effective Rate	Number of Deaths
	Total	White	Negro	All Causes		Disease		Injuries			
				Cases	Rates	Cases	Rates	Cases	Rates		
Fort Belvoir, Virginia	15546	13797	1749	665	446.07	562	376.98	103	69.09	17.34	1
Fort McNair, Wash, D.C.	782	722	60	29	386.72	22	293.37	7	93.17	11.25	0
Fort Myer, Virginia	3849	3708	141	166	449.74	145	392.84	21	56.89	10.80	0
U.S. Army Dispensary The Pentagon	4184	4160	24	75	186.93	71	176.96	4	9.97	16.89	0
All Others	2553	2549	4	53	216.48	44	179.72	9	36.76	7.91	0
Total - Military Dist. of Washington	26914	24936	1978	988	382.81	844	327.01	144	55.79	15.26	1
AMC--Med Det(Duty Pers)	3004	2731	273	77	626.90	72	586.20	5	40.70	15.90	0

ADMISSIONS, SPECIFIED DISEASES - RATE PER 1000 PER YEAR  
5-Week Period Ending 30 May 1951  
(Data from WD AGO Forms 8-122)

STATION	Common Respiratory Disease	Pneumonia All Types	Pneumonia Atypical	Measles	Mumps	Scarlet Fever	Tuberculosis	Rheumatic Fever	Diar-rheal Disease	Hepa-titis	Ma-laria	Influ-enza	Psychiatric Disease
Fort Belvoir, Va.	117.39	15.43	15.43	31.53	4.02	-	-	2.01	.67	1.34	3.35	-	6.71
Fort McNair, Wash DC	53.34	-	-	-	13.34	-	-	-	-	-	-	-	-
Fort Myer, Virginia	48.76	2.71	2.71	35.22	2.71	-	-	-	-	-	-	-	-
US Army Dispensary The Pentagon	74.77	-	-	2.49	4.98	-	2.49	-	-	-	-	-	-
All Others	12.25	-	-	-	-	-	-	-	-	-	-	-	-
Total-Military Dist of Washington	89.11	9.30	9.30	23.63	3.87	-	.39	1.16	.39	.77	1.94	-	3.87
AMC-Medical Detach. (Duty Pers)	488.50	-	-	8.10	-	-	8.10	-	-	-	-	-	-

\*

\*

\*

## FACTORS IN VENEREAL DISEASE CONTROL

Venereal diseases may be looked upon as an unsolved problem. Medically, the antibiotics appear to have provided ample therapeutics insofar as can now be determined and certainly they have materially reduced loss of time from these causes. The prevention of venereal diseases is so intertwined with moral issues and the interests of other components of the services that it scarcely can be considered a prime responsibility of military preventive medicine. The problem cannot be approached without the combined efforts of all these agencies together with the Medical Department, guided and supported by an interested command. The Armed Forces are made up of persons all of whom are eighteen years or more of age. Home, school, religious influences, and public health training of these men and women prior to that age have established firm concepts and habit patterns. In some aspects, it is a problem of mental hygiene and public health education in the formative years, a responsibility that devolves more and more upon civilian public health. The Army has come to stress a positive approach with emphasis on substitutive activities, general character guidance and the planning of recreation and leisure hours, rather than the fear motive of dire consequences for the transgressor.

(The above is extracted from the article "Military Preventive Medicine" by Colonel Tom F. Wayne, MC, published in HEALTH NEWS, Vol 28, No. 3, March 1951, New York State, Department of Health)

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## PREVENTIVE MEDICINE

## VENEREAL DISEASE

Venereal Disease rate among units within the Military District of Washington, decreased during the May report period.

The rate for May 1951, was 8.52, a decrease from the April rate of 9.89. A total of 22 cases were reported for the five week period ending 30 May 1951. Of this total all were reported from Fort Belvoir, Virginia.

During the report period, white personnel incurred 8 of the reported number of cases, with a rate of 3.35 and 14 were incurred by negro personnel with a resulting rate of 73.81 per 1000 troops per annum.

In order to enable non-professional personnel to more intelligently understand the rates of cases to personnel on duty at each designated station, we have undertaken to report the number of cases per 1000 men for this report period (May) in addition to the rate per 1000 per annum which is not always clearly understood and is often misinterpreted.

Pertinent statistical tables and charts may be found on pages 17, 18 and 19.

## NEW VENEREAL DISEASE CASES - EXCL EPTS - MARCH, APRIL AND MAY 1951

STATION	Rate per 1000 per year	Rate per 1000 per year	Rate per 1000 per year	Cases per 1000 Troops
	MARCH 51	APRIL 51	MAY 51	MAY 51
Fort Belvoir	2.018	14.68	14.76	1.415
Fort McNair	-	15.95	-	-
Fort Myer	.539	3.82	-	-
U.S. Army Dispensary, Pentagon	-	-	-	-
All Others	-	-	-	-
Total - Military District of Washington Units	1.328	9.89	8.52	.817
Army Medical Center - Medical and Holding Detachments	.364	9.18	-	-
Total - Dept/Army Units Mil Dist of Washington	1.242	9.83	7.67	.735
	*	*	*	*

## IMPORTANCE OF PREVENTIVE PSYCHIATRY

Psychiatric casualties accounted for great noneffectiveness during the war, but a broad program of preventive psychiatry did not develop. Preventive techniques were effective in the organizations in which they were practiced with vigor. Principles and procedures established by Division psychiatrists are foundations upon which to develop preventive psychiatry. Armed Forces resources afford a unique opportunity to advance this important field of military medicine. Full utilization of military and industrial manpower requires infallible yardsticks and standards for selection and rejection for psychiatric causes. Research in preventive psychiatry in the Armed Forces and in mental hygiene by civilian agencies and institutions must provide these measures. The problem is receiving attention by some of the Schools of Public Health.

(The above is extracted from the article "MILITARY PREVENTIVE MEDICINE" by Colonel Tom F. Wayne, MC, published in HEALTH NEWS, Vol 28, No. 3, March 1951, New York State, Department of Health).



CHART 1

ADMISSION RATES BY MONTH, ALL CAUSES, COMMON RESPIRATORY DISEASE AND INJURY  
MDW RATE PER 1000 TROOPS PER YEAR

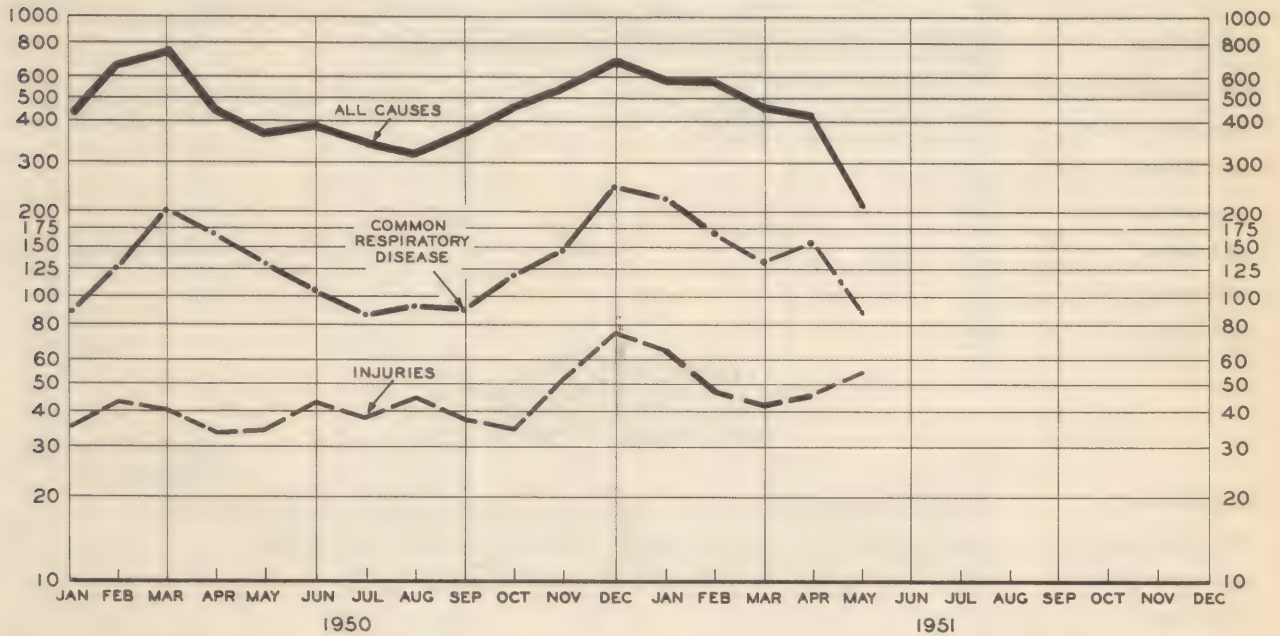
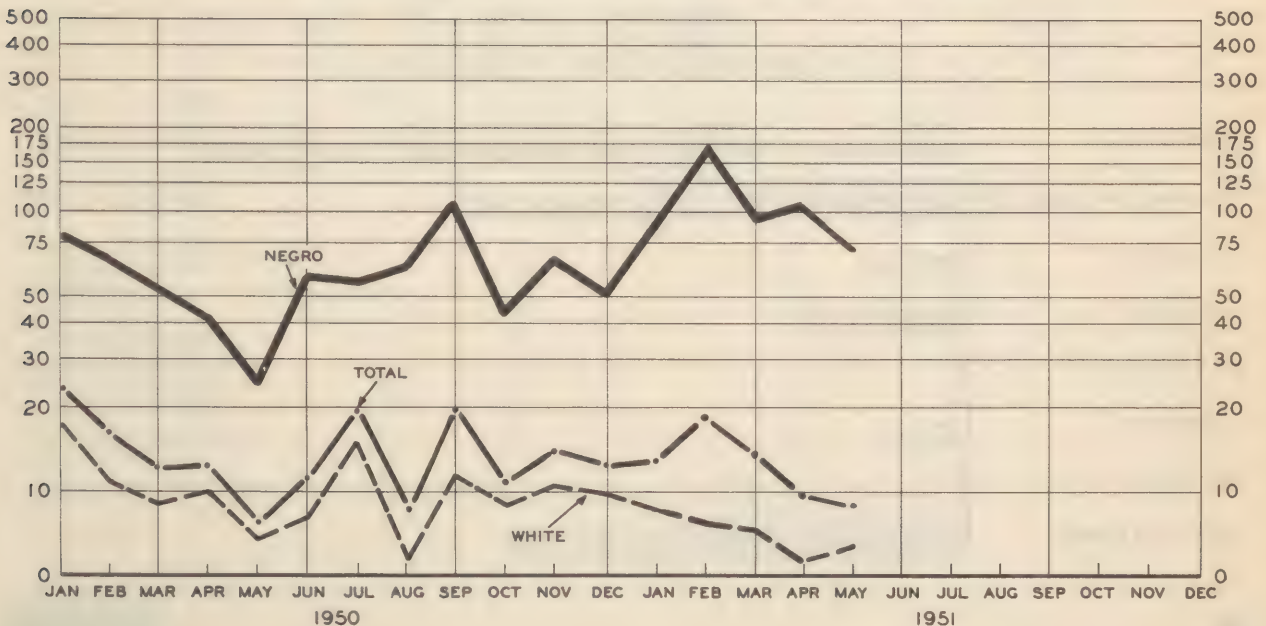


CHART 2

ADMISSION RATES BY MONTH VENEREAL DISEASES MDW NOT INCL. ARMY MEDICAL CENTER  
RATES PER 1000 TROOPS PER YEAR  
INCLUDES ALL CASES REPORTED ON WD AGO 8-122 EXCEPTING THOSE EPTS

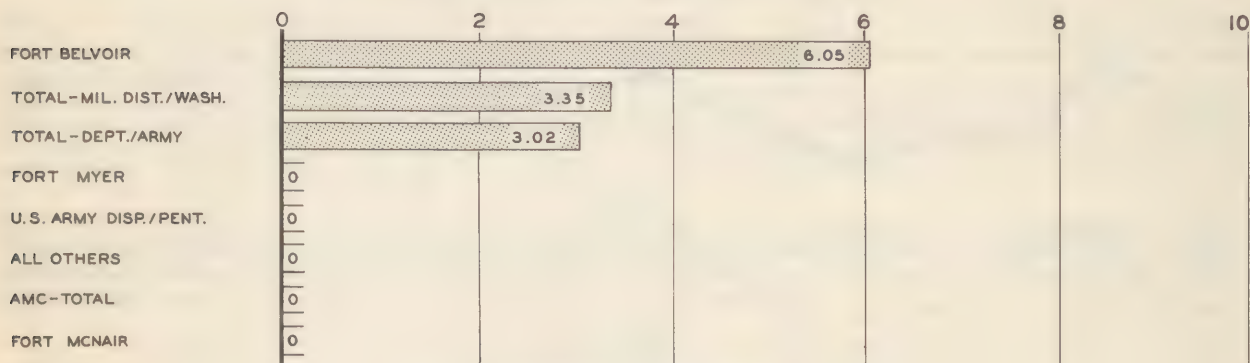




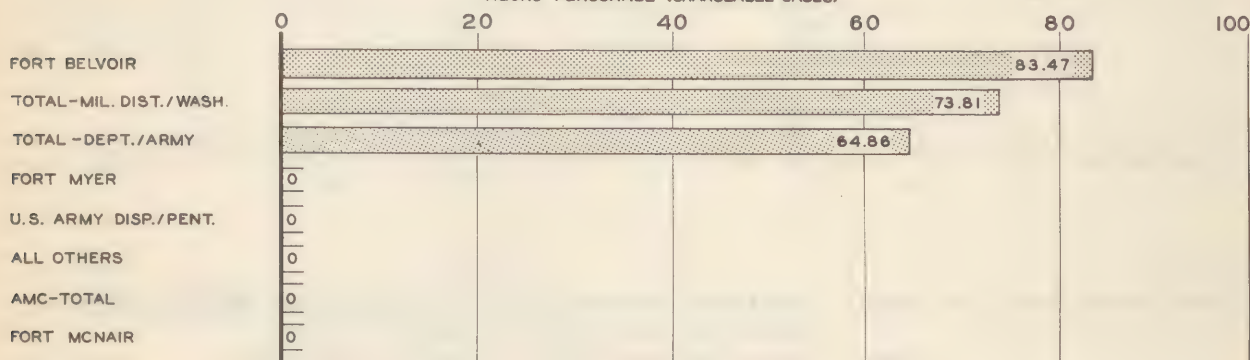
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## PREVENTIVE MEDICINE

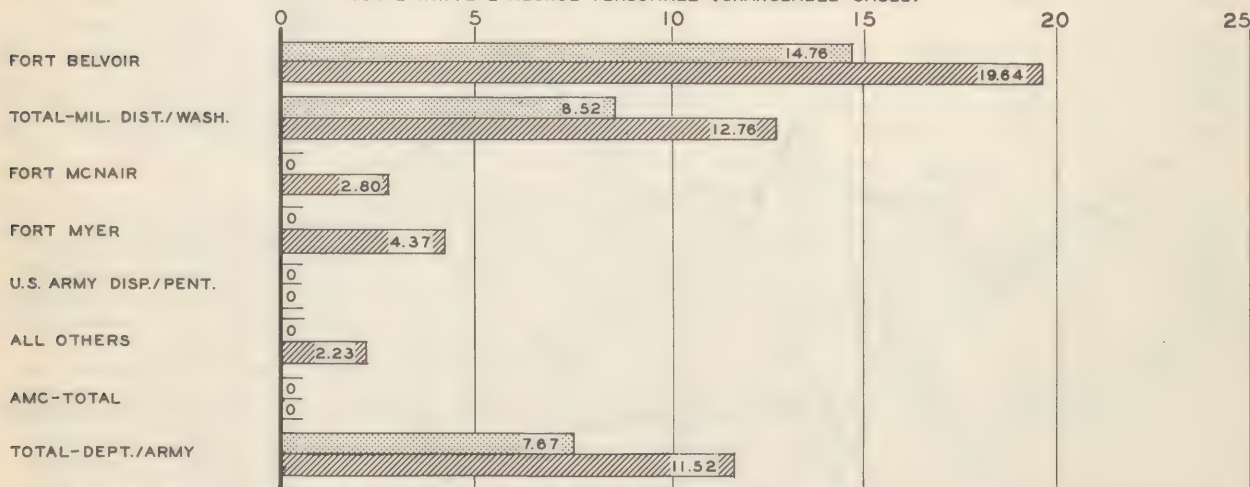
### VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR 5 WEEK PERIOD ENDING 30 MAY 1951 WHITE PERSONNEL (CHARGEABLE CASES)



### VENEREAL DISEASE RATE PER 1000 TROOPS PER YEAR 5 WEEK PERIOD ENDING 30 MAY 1951 NEGRO PERSONNEL (CHARGEABLE CASES)



### VENEREAL DISEASE RATES PER 1000 PER YEAR FIVE WEEK & CUMULATIVE TOTALS ENDING 30 MAY 1951 TOTAL WHITE & NEGRO PERSONNEL (CHARGEABLE CASES)



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# PREVENTIVE MEDICINE

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## CONSOLIDATED MONTHLY VENEREAL DISEASE STATISTICAL REPORT

For the Five Week Period Ending 30 May 1951

(Data from WD AGO 8-122) (Chargeable Cases)

STATION	R A C E	Mean Strength	Number of Cases-EPTS Not Included				Rate per 1000 Troops per Annum	Total Days Lost From Duty (Old & New Cases)
			Syphilis	Gonorrhea	Other	Total		
Fort Belvoir	W	13797	0	7	1	8	6.05	0
	N	1749	2	12	0	14	83.47	0
	T	15546	2	19	1	22	14.76	0
Fort McNair	W	722	0	0	0	0	-	0
	N	60	0	0	0	0	-	0
	T	782	0	0	0	0	-	0
Fort Myer	W	3708	0	0	0	0	-	0
	N	141	0	0	0	0	-	0
	T	3849	0	0	0	0	-	0
US Army Dispensary The Pentagon	W	4160	0	0	0	0	-	0
	N	24	0	0	0	0	-	0
	T	4184	0	0	0	0	-	0
All Others	W	2549	0	0	0	0	-	0
	N	4	0	0	0	0	-	0
	T	2553	0	0	0	0	-	0
Total-Military District of Washington	W	24936	0	7	1	8	3.35	0
	N	1978	2	12	0	14	73.81	0
	T	26914	2	19	1	22	8.52	0
Army Medical Center	W	2731	0	0	0	0	-	0
	N	273	0	0	0	0	-	0
	T	3004	0	0	0	0	-	0
Total-Dept/Army Units	W	27667	0	7	1	8	3.02	0
	N	2251	2	12	0	14	64.86	0
	T	29918	2	19	1	12	7.67	0

### VENEREAL DISEASE RATES US\*

(All Army Troops)	MARCH 1951	APRIL 1951	MAY 1951
First Army Area	10	11	15
Second Army Area	18	18	20
Military District of Washington	13	10	8
Third Army Area	21	20	19
Fourth Army Area	26	27	29
Fifth Army Area	10	15	17
Sixth Army Area	25	47	29
TOTAL United States	19	22	21

\*Compiled in the Office of the Surgeon General and Includes US Army Hospital.

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## PREVENTIVE MEDICINE

## DENTAL SERVICE - FIVE WEEK PERIOD ENDING 30 May 1951

STATION	DENTAL SERVICE - FIVE YEAR PERIOD ENDING 30 MAY 1951										Dentures			Ex- traction	Calcu- lus Removed	X- Rays	Ex- amina- tions		
	Military		Civilian		Sit- tings	Amal- gam	Oxy and Amal	Sili- cate	In- lays	Bridges	Bridge Repair	Crowns	Full					Par- tial	Re- pair
	Duty Men	Duty Days	Duty Men	Duty Days															
Fort Belvoir	26	735	1	20	6856	2694	1673	738	4	15	26	13	37	50	31	1759	431	1315	1498
Fort McNair	2	62	0	0	403	121	125	46	1	3	3	1	0	5	2	41	36	160	82
Fort Myer, Va.	5	155	1	21	2160	819	230	140	0	0	6	3	6	20	11	214	149	909	326
US Army, Disp- ensary, Pent.	7	206	0	0	2599	431	284	160	3	8	9	6	21	19	22	151	293	708	584
All Others	3	92	0	0	962	290	59	69	1	2	0	0	3	15	3	307	72	256	379
Total - MDW	43	1250	2	41	12981	4355	2371	1153	9	28	44	23	67	107	69	2472	981	3348	2869

POUNDS MEAT AND MEAT FOOD AND DAIRY PRODUCTS INSPECTED MAY 1951  
(Data obtained from WD AGO Forms 8-134)

STATION	CLASS * 3	CLASS * 4	CLASS * 5	CLASS * 6	CLASS * 7	CLASS * 8	CLASS * 9	TOTAL
Fort Lesley J. McNair		52,575	166,406		221,902		69,093	509,976
Fort Belvoir, Virginia		726,117	455,943		926,943	154,522	506,153	2,779,678
Alexandria Field Buying Office		689,466	138,298	893,469			111,828	1,833,061
Fort Myer, Virginia		141,270	200,013		340,250	14,992	135,505	832,030
Cameron Station, Virginia		171,984	178,066		339,019	7,752	107,551	804,372
MDW Veterinary Detachment	1,078,400							1,078,400
The Pentagon						337,249		337,249
Army Medical Center		211,654	177,089		407,741	14,797	70,054	881,335
TOTAL	1,078,400	2,003,066	1,315,815	893,469	2,235,855	529,312	1,000,184	9,056,101

## REJECTIONS:

Not type class or grade								
Alexandria Field Buying Off.		748						748
MDW Veterinary Detachment	23,178							23,178
Insanitary or Unsound								
Fort McNair, Wash, DC					20			20
Alexandria Field Buying Off.		1,798						1,798
Fort Myer, Virginia					62			62
Cameron Station, Alex., Va.					48			48
MDW Veterinary Detachment	11,407							11,407
Army Medical Center, Wash DC						200		200
TOTALS	34,585	2,546			130	200		37,461

\*Class 3 - Prior to Purchase  
 \*Class 4 - On delivery at Purchase  
 \*Class 5 - Army Receipt except Purchase  
 \*Class 6 - Prior to Shipment  
 \*Class 7 - At Issue  
 \*Class 8 - Purchase by Post Exchange, Clubs  
 Messes or Post Restaurants  
 \*Class 9 - Storage

## OUTPATIENT SERVICE

Consolidated statistical data on outpatient service, Military District of Washington, less Walter Reed Army Hospital, are indicated below for the four - week period ending 25 May 1951:

ARMY:	NON-ARMY:
Number of Outpatients . . . . . 5557	Number of Outpatients . . . . . 7046
Number of Treatments . . . . . 25389	Number of Treatments . . . . . 26564
NUMBER OF COMPLETE PHYSICAL EXAMINATIONS CONDUCTED. . . . .	1327
NUMBER OF VACCINATIONS AND IMMUNIZATIONS ADMINISTERED . . . . .	15340

## HOSPITAL MESS ADMINISTRATION

STATION	FEBRUARY 1951	MARCH	APRIL 1951	MAY 1951
Fort Belvoir				
Income per Ration	\$1.22	\$1.254	\$1.2999	\$1.2996
Expense per Ration	1.15	1.135	1.2716	1.2549
Gain or Loss	/.07	/.118	/.0283	/.0447

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# PREVENTIVE MEDICINE

TABLE I\*  
POISON ANTIDOTES \*\*

RODENTICIDE	ANTIDOTE	DIRECTIONS FOR USE
Zinc phosphide or other phosphorous compounds	Copper Sulfate	Give 1/4 gram (a penknife point full in an emergency) dissolved in a glass of water. Repeat every 10 minutes until vomiting is induced. A cathartic of magnesium sulfate should also be given.
Arsenic trioxide or sodium arsenite	"Arsenic Antidote" a freshly prepared solution of ferric hydroxide and magnesium oxide	Administer orally according to directions on the bottle. THIS IS NOT EFFECTIVE UNLESS GIVEN IMMEDIATELY AFTER THE POISON HAS BEEN TAKEN. Promptly followed by stomach lavage and magnesium sulfate as a cathartic.
Thallium Sulfate	None known	Induce vomiting immediately. Stomach lavage and cathartic administered by a physician may be effective.
Sodium fluoroacetate of 1080	None known	Induce vomiting immediately. Give dose of magnesium sulfate or other cathartic. Put patient completely at rest and call a physician, giving him the instructions furnished with the bottle of 1080.
Alphanaphthylthiourea or ANTU	None known	Induce vomiting immediately. Keep patient warm and at rest. Call a physician. DO NOT GIVE A CATHARTIC OR ALKALAI.

\* Similar charts should be posted in the workshop and carried on the trucks used by the poisoning crew members.

\*\* In EVERY case, first cause the patient to vomit and then call a physician. If stomach lavage is used, apply antidote with lavage.



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